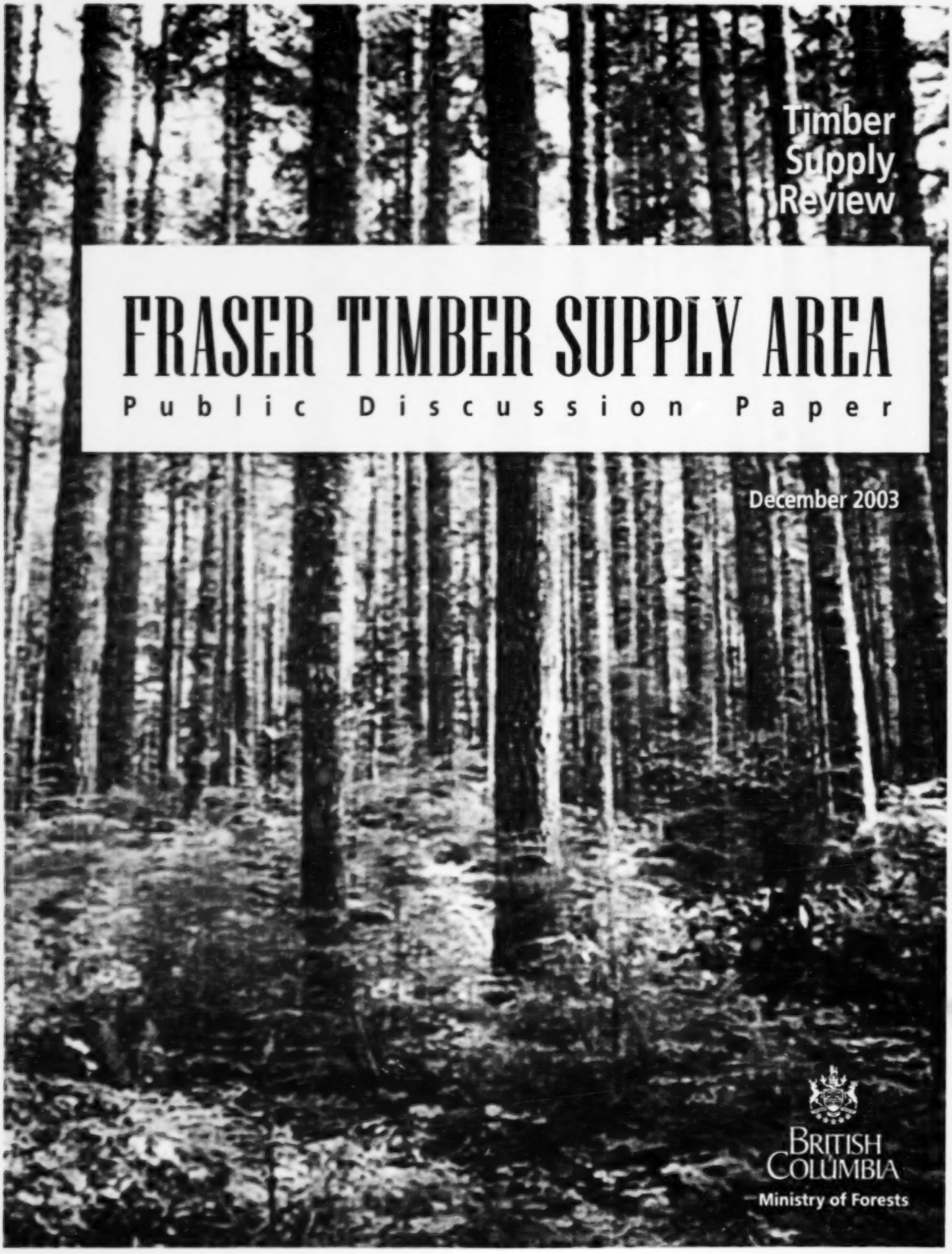


FRASER TIMBER SUPPLY AREA

Public Discussion Paper

December 2003

BRITISH COLUMBIA
Ministry of Forests

Introduction

The British Columbia Forest Service regularly reviews the timber supply* in the timber supply areas* (TSAs) and tree farm licences* (TFLs) in the province. The timber supply review examines the impacts of current forest management practices on the timber supply, economy, environment and social conditions of the local area and the province. Based on this review, the chief forester will determine a new allowable annual cut* (AAC) for the Fraser TSA.

By law, the chief forester must review and set new AACs for all TSAs and TFLs every five years. In a few cases where the chief forester determines that the allowable annual cut would not likely change significantly then the next harvest level decision may be postponed by up to five more years.

Objectives of the Timber Supply Review are to:

- **Examine** the relevant current forest management practices, public input, and economic, environmental and social factors;
- Set a new AAC for the next five years; and
- List the information to be improved for future timber supply reviews.

*Throughout this report, an asterisk at the end of a word or phrase indicates that a definition can be found in the margin.

***Timber supply** - the amount of timber that is forecast to be available for harvesting over a specified time period, under a particular management regime.

***TSA** - an integrated resource management unit established in accordance with Section 7 of the Forest Act.

***TFL** - provides rights to harvest timber, and outlines responsibilities for forest management, in a particular area.

***AAC** - the rate at which timber is made available for harvesting (usually for a five-year period) in response to social, economic and environmental considerations.

Timber Supply Review in the Fraser TSA

The British Columbia Forest Service has now completed the *2003 Fraser TSA Analysis Report*, which is summarized in this discussion paper. This discussion paper is intended to provide British Columbians with an overview of the timber supply review process and harvest level forecasts for the Fraser TSA, and to encourage them to provide comments during a 60-day public review period.

Public comments will be accepted until February 2, 2004.

Before setting a new AAC, the chief forester will review all relevant reports and public input. The chief forester's determination will be outlined in a rationale statement, which along with the summary of public input, will be available to the public upon release. Following the release of the AAC determination by the chief forester, the minister of forests will apportion the AAC to the various licences and programs.

Description of the TSA

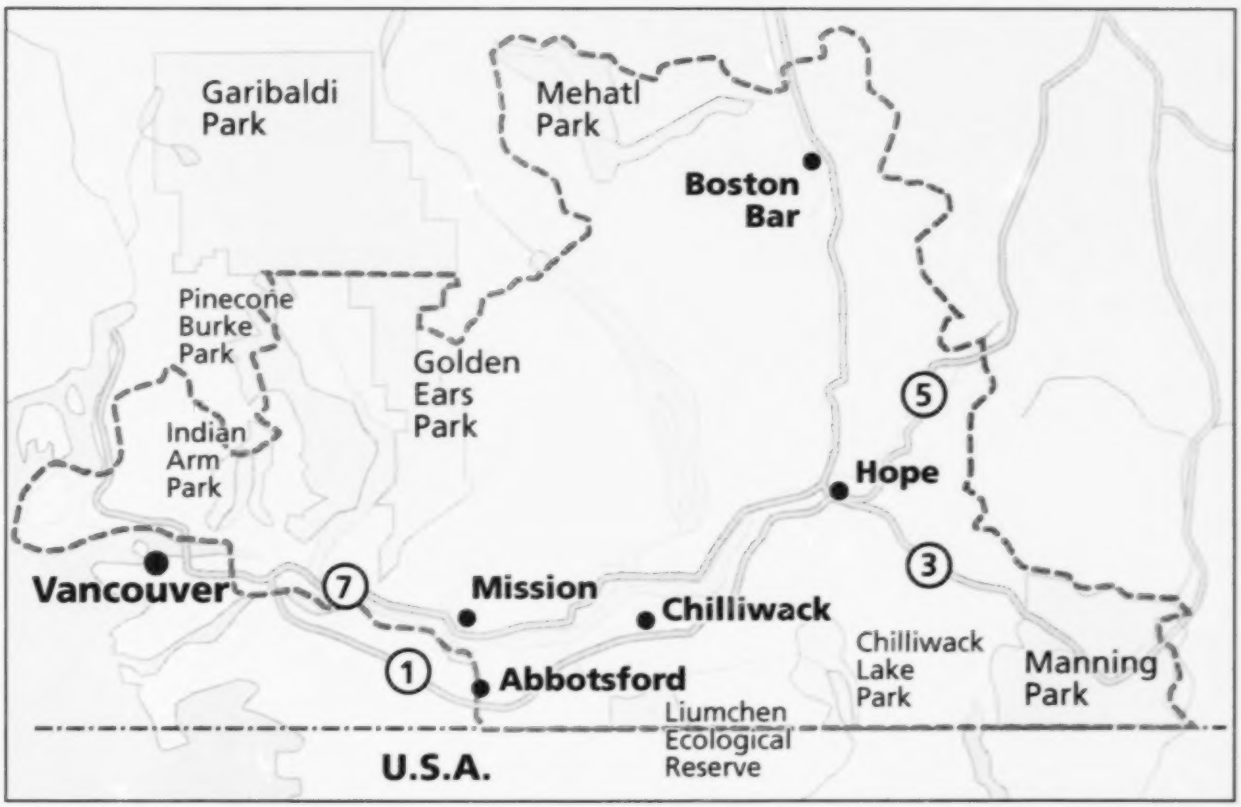
The Fraser TSA is located in the southwest mainland area of B.C. and is administered from the Chilliwack Forest District office. The TSA covers approximately 1.4 million hectares, including the major population centres of the Lower Mainland and Fraser Valley and is the most densely populated TSA in the province.

In 2001, the Chilliwack Forest District's population was more than 2.2 million, an 8.3-percent increase since 1996. The population is expected to increase by 8.1 percent from 2001 to 2006.

There are 34 individual First Nations bands and five tribal organizations who have asserted traditional territory in the Fraser TSA. Eight groups are in treaty negotiations.

Forest land resources

The Fraser TSA is biologically diverse, extending from sea level to 2,400 metres. Despite urban and rural development, it has one of the richest and most diverse arrays of wildlife in Canada. Important wildlife species include the mule and



Fraser Timber Supply Area

blacktail deer, black bear, grizzly bear and pine marten. The Lower Fraser River and its tributaries are spawning and migration corridors for chinook, chum, coho, sockeye and pink salmon, as well as a number of other valuable fish species.

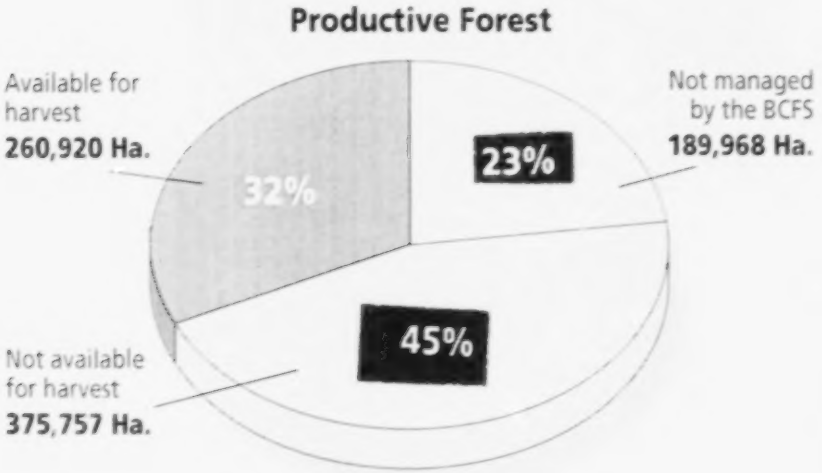
The northern spotted owl has the highest profile of the species of management concern in the Fraser TSA, and is recognized as nationally endangered. B.C.'s management plan for the northern spotted owl is based on the understanding that the spotted owl population would stabilize and increase as the amount of habitat stabilizes and then increases. Resource management plans have been developed and approved for spotted owl special resource management zones (SRMZ), and harvesting in the Fraser TSA has been guided by these plans. As a result, harvesting within the approximately 155,500 hectares of spotted owl zones has been limited to activities that will create, maintain or enhance spotted owl habitat. In the analysis, harvesting activities occur on only about 21,000 hectares within the spotted owl zones.

Under the Identified Wildlife Management Strategy, the following are priority species for habitat management in this TSA: western grebe, coastal tailed frog, American bittern, bull trout, grizzly bear, Keen's long-eared myotis, marbled murrelet, mountain beaver (both subspecies), Pacific water shrew, rubber boa, sandhill crane and turkey vulture.

About 58 percent of the Fraser TSA, or 826,645 hectares, is

Figure 1.

Breakdown of the productive forest for Fraser TSA



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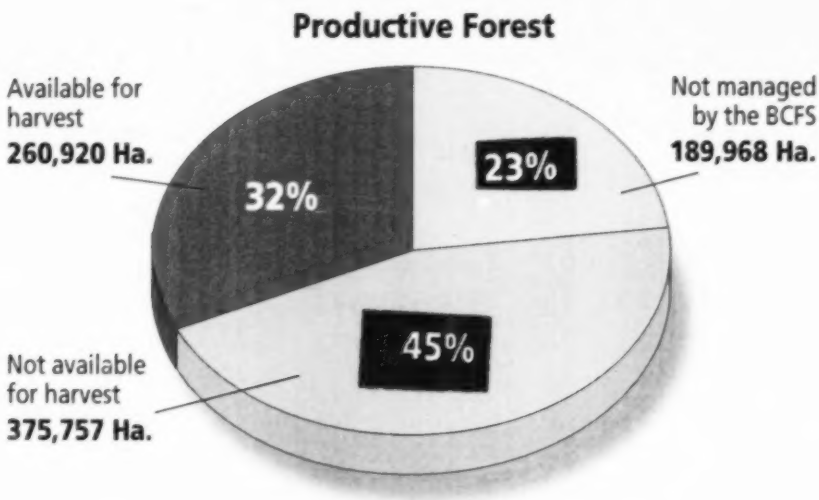

Figure 1.
Breakdown of the productive forest for Fraser TSA

considered productive forest. As Figure 1 shows, about 32 percent of the productive forest is considered available for harvesting (260,920 hectares).

The forest industry provides an important source of revenue and employment in the Fraser TSA. Other significant forest resources include tourism, recreation and commercial harvesting of botanical forest products such as wild mushrooms and salal.

Innovative Forestry Practices Agreements

In 1997, International Forest Products (Interfor) obtained an Innovative Forestry Practices Agreement (IFPA) covering an area near Hope within the Fraser TSA. IFPAs allow the holder to undertake approved innovative practices and if demonstrated through analysis, to request an increase in the allowable annual cut (AAC) related to the innovative practices. Based on these agreements, the Forest Service regional manager may determine increases to the AACs assigned to replaceable forest licences. The IFPA process is not part of the timber supply review in which the chief forester determines AACs for TSAs and TFLs. This discussion paper focuses on the timber supply review process for the Fraser TSA.

Current allowable annual cut

As part of the last timber supply review, the chief forester set the allowable annual cut in the Fraser TSA at 1.27 million cubic metres, effective April 1, 1999. This level accounted for an 18-percent reduction from the previous allowable annual cut. The current allowable annual cut includes a harvest of up to 32,500 cubic metres from deciduous- leading forest types.

Socio-economic profile

Regional economy

Typical of larger urban centres, the Fraser TSA economy, especially that of metropolitan Vancouver, has large business, consumer services and public sectors. Its labour force is dominated by public service, wholesale and retail trade and manufacturing.

Primary sectors such as forestry make up a larger proportion of the labour force east of metropolitan Vancouver, especially in the upper Fraser Valley and Fraser Canyon. For example, agriculture, forestry, fishing and hunting account for nine percent of the Fraser Valley Regional District's labour force and one percent of the Greater Vancouver Regional District's labour force.

Since employment does not take into account differences in seasonality and average wages between industries, employment income can be a better indicator of a sector's contribution to the economy. In 1996, tourism accounted for 12 percent of basic employment and only five percent of basic income in the Fraser TSA, reflecting the tendency for lower wages and higher levels of part-time employment. By comparison, the public sector accounted for 32 percent of basic employment and 25 percent of basic income, and forestry five percent of basic employment and four percent of basic income. Sectors with higher incomes tend to support more supply and service activity.

From 1998 to 2002, the total labour force in the Mainland-Southwest Development Region, which includes the Chilliwack Forest District, increased by close to 10 percent during a time when the population increased by about six percent, indicating a net increase in total employment. The trends are not as favourable for smaller communities in the eastern portion of the district, especially from Hope through the Fraser Canyon.

Timber supply forecasts

A timber supply computer model was used to project several possible timber supply forecasts for the next 250 years. The base case forecast illustrates the effect of current forest management practices on timber supply, using the best available information. The base case forecast is not a recommendation for an AAC, but rather it is one of many sources of information the chief forester will consider when setting the AAC.

Figure 2 shows the results of the timber supply analysis as a part of the third timber supply review for the Fraser area. The new analysis suggests the current allowable annual cut of 1.27 million cubic metres can

be maintained for the next 140 years followed by a 20-percent increase in the harvest level to 1.54 million cubic metres a year. The base case harvest forecast represents a significant increase in timber supply over previous analyses shown for the Fraser TSA.

The two factors that contribute to the stability of the projected timber supply are:

- The Ministry of Sustainable Resource Management completed a new Vegetation Resource Inventory that included field sampling. The new inventory information resulted in higher volumes per hectare than the previous inventory file.
- New information about site productivity in the TSA showed that the post-harvest site index assignments for Douglas-fir and western hemlock were underestimated.

The first and second timber supply reviews resulted in reducing the allowable annual cut by about 28 percent. The reduced harvest level combined with the new inventory and site index assignments, which were incorporated into the base case forecast resulted in a more stable forecast in both the short and long term. As Figure 2 shows, without these factors, the base case forecast would have been very similar to the previous 1998 timber supply forecast for the Fraser TSA.

The base case forecast takes into account forest values such as environmentally sensitive areas, long-term spotted owl habitat, old-growth management areas, riparian reserves and management zones, wildlife tree retention and archeological sites. In the Chilliwack Forest District, forest management is shifting timber harvesting activities towards more second-growth forests to reduce activity in older forests. This will allow the use of existing infrastructures such as roads and bridges, and will reduce harvesting costs and provide more flexibility in harvest planning.

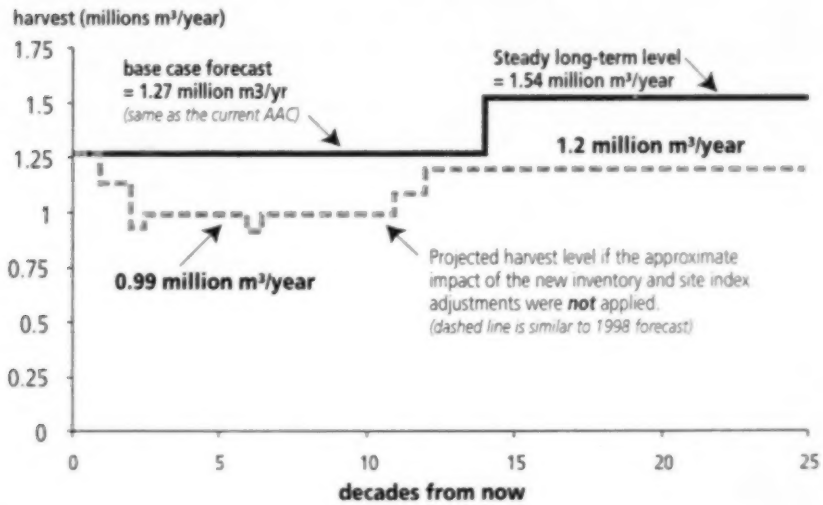

Figure 2.

Base case forecast and the approximate impact of the new inventory and site index adjustments — Fraser TSA, 2003

Sensitivity analyses: examining uncertainty

Because forests are complex and constantly changing, timber supply analysts assess how the timber supply might be affected by uncertainties in inventory information and management practices. These uncertainties are generally examined through what are called sensitivity analyses, which the chief forester will consider in determining an AAC. The sensitivity analyses are useful for assessing how uncertainties and risks, or any changes in information, might affect timber supply.

For the Fraser TSA a number of sensitivity analyses were conducted to examine the stability of the timber supply in light of uncertainties, of which one key issue is examined below. For a complete listing of sensitivity analyses, please refer to the *2003 Fraser TSA Analysis Report.*

Uncertainty in the implications of the variable retention system

In the Fraser TSA, forest practices now include the commitment to implementing variable retention. This means that individual trees or groups of trees are retained to maintain the structural diversity within harvested areas. This practice has only been underway for the last several years and there is a wide range in the levels of retention. At the time of data gathering for the timber supply analysis, no emperical data had been collected that was suitable for applying to the entire TSA.

A sensitivity analysis was undertaken to examine the possible implications of variable retention. As shown in Figure 3, if about 15 trees per hectare were retained in most areas, with 40 trees per hectare being left in spotted owl habitat, then after the first decade the harvest level could be three-percent lower than in the base case, and up to eight-percent lower in the long term.

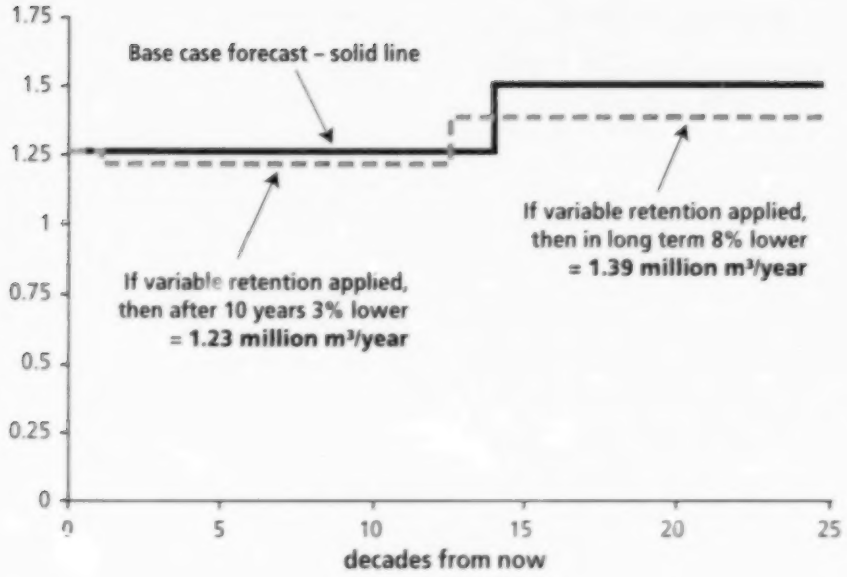

Figure 3.

Harvest forecast showing possible impacts from variable retention.

In summary, changes in our understanding and management of complex forest ecosystems mean that there is always some uncertainty in the information used in timber supply projections. For the Fraser timber supply area, forest management is complex due to its proximity to large population centres and concerns about harvesting near urban areas. In addition there are ongoing processes respecting land use and forest management such as the spotted owl recovery strategy and processes underway to establish ungulate winter ranges. Prior to determining a new allowable annual cut for the Fraser timber supply area, the chief forester will consider all of the uncertainties.

Your input is needed

Public input is a vital part of establishing the allowable annual cut. Feedback is welcomed on any aspect of this discussion paper, the *2003 Fraser TSA Analysis Report* and other issues related to the timber supply in the Fraser TSA. Forest Service staff would be pleased to answer questions to help you prepare your response. Please send your comments to the forest district manager at the address below.

You may identify yourself on the response if you wish. If you do, you are reminded that responses will be subject to the *Freedom of Information and Protection of Privacy Act* and may be made public. If the responses are made public, personal identifiers will be removed before the responses are released.

A summary of public comments will be attached to the AAC rationale and will be available from the district office when the chief forester's AAC determination is announced.

Your comments will be accepted until February 2, 2004.

For more information contact and/or mail your comments to:

District Manager,
Chilliwack Forest District, 46360 Airport Road,
Chilliwack, B.C. V2P 1A5
Phone: (604) 702-5700 Fax: (604) 702-5711

Or electronically mail to **len.leroux@gems9.gov.bc.ca**
Or visit our website at **http://www.for.gov.bc.ca/hts/**

Background Information Regarding TSR

The Chief Forester's Responsibility

Determining the allowable annual cuts (AACs) for public forest lands in British Columbia is the responsibility of the province's chief forester. In this lengthy and complex process, the chief forester considers technical reports, analyses and public input, as well as government's social and economic objectives.

This responsibility is required by legislation in the Forest Act, Section 8. It states that the chief forester shall specifically consider the following factors:

1. The rate of timber production that may be sustained from the area, taking into account:
   - the composition of the forest and its expected rate of growth
   - the time that it will take the forest to become re-established
   - silviculture treatments, including reforestation
   - standards of timber utilization
   - constraints on the amount of timber that may be produced due to use of the forest for other purposes.
2. The short- and long-term implications to the province of alternative rates of timber harvesting from the area.
3. The economic and social objectives of the Crown for the area, region and province - as expressed by the minister of forests.
4. Abnormal insect or disease infestations, and major salvage programs planned for the timber on the area.

Some of these factors can be measured and analyzed – others cannot. Ultimately, the chief forester's determination is an independent professional judgment based on the best available information. By law, the chief forester is independent of the political process, and is not directed by the minister of forests when determining AACs. In these determinations, the chief forester considers relevant information from all sources.